# ODOT Support of OGIC Standards
# Revised 3/25/14

| FIT Area and Name of Standard | Overview | Data Source | ODOT Contributor/ User |
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| **Addresses:** | | | |
| Federal Graphic Data Committee (FGDC) (2011) | This standard has been developed in conformance with the FGDC Standards Reference Model for data standards. It provides, in four separate parts, a data content, classification, quality, and exchange standard for thoroughfare, landmark, and postal addresses, and for address reference systems:<br><br>• **Data Content** standards provide semantic definitions of a set of objects. In this standard, the content part specifies and defines the data elements that may appear in or describe street, landmark, and postal addresses, and address reference systems.<br>• **Data Classification** standards provide groups or categories of data that serve an application. In this standard, the classification part defines classes of addresses according to their syntax, that is, their data elements and the order in which the elements are arranged.<br>• **Data Quality** standards describe how to express the applicability or essence of a data set or data element and include data quality, assessment, accuracy, and reporting or documentation standards. In this standard, the Data Quality part specifies tests and measures of address data quality.<br>• **Data Exchange** standards describe how to produce or consume packages of data, independent of technology and applications, to facilitate moving data between agencies and systems. In this standard, the Data Exchange part provides a complete XML schema description for exchange of address data.<br><br>Comprehensive Data Standard (pdf) | DAS Project and Local Governments | User |

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| **Administrative Boundaries:** | | | |
| Oregon Administrative Boundaries Standard (OABS) (2008) | OABS sets forth the essential elements and data structure necessary to adequately describe, develop, exchange, and use administrative boundary data produced in Oregon. The OABS is primarily concerned with a core set of geospatial information to support the need for an accurate and current representation of the extent and spatial relationship of an array of administrative boundaries. This standard is intended to support a single type of boundary per dataset. The types of administrative boundaries are state boundaries, city boundaries, county boundaries, region boundaries, etc.<br><br>Administrative Boundaries Standard, v2.0 (pdf) | Federal, State and Local Agencies | Contributor and User |
| **Bioscience:** | | | |
| Oregon Fish Habitat Distribution Data Standard (OFHDDS) (2011) | The OFHDDS standard provides a common model and includes the essential elements and data structure necessary to adequately describe, develop, exchange and use fish habitat distribution data produced in Oregon. The OFHDDS focuses on a core set of geospatial information, including geometry, to support the need for an accurate, current and complete representation of fish habitat distribution throughout the state. The designation of fish habitat distribution is species-specific and is dependent upon a spectrum of knowledge regarding fish presence and habitat use within the streams, lakes and estuaries of Oregon. The term "habitat" is used as these data are not based solely on verified observations of fish species. The fish habitat distribution data may also be based on the best professional opinion of natural resource agency fisheries biologists that suitable habitat for a specific species exists/existed within a particular waterbody and it is/was accessible by an existing/historical population.<br><br>Oregon Fish Habitat Distribution Data Standard, v2.0 (pdf) | Fish and Wildlife | User |

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| Oregon Fish Passage Barrier Data Standard (OFPBDS) (2010) | The OFPBDS standard includes the essential elements and data structure necessary to adequately describe, develop, exchange, and use fish passage barrier data produced in Oregon. The OFPBDS focuses on a core set of geospatial information, including geometry, to support the need for an accurate, current and complete representation of the fish passage barriers affecting fish migration throughout the state. Applications to be supported initially include the inventory and prioritization of fish passage barriers (for correcting passage issues) by user-specified parameters at multiple scales. The standard provides a basic characterization of current and potential barriers and also the general passage status at each feature. Detailed passage assessment data (e.g., measurements of stream hydraulics) are not included in the standard at this time.<br><br>Fish Passage Barrier Standard, v 1.1 (pdf) | Fish and Wildlife | User |
| Oregon Wetland Mapping Standard (OWMS) (2010) | The OWMS establishes the essential elements and data structure necessary to adequately describe, develop, exchange, and use wetland location data produced in Oregon. The OWMS is primarily concerned with a core set of geospatial information needed to support accurate and current representation of the extent and spatial relationship of an array of wetland types. This standard is intended to support a single type of wetland representation per dataset.<br><br>Wetland Mapping Standard, v2.1.1 (pdf) | State and Local Agencies | User |
| **Cadastral:** | | | |
| Cadastral Data Exchange Standard (CDES) (2012) | CDES describes the essential elements and data structure necessary to adequately describe, produce, and use real property data in Oregon. This standard forms the basis for automating the real property data found in public records by defining attributes or elements that are in land transaction documents. It provides suggested domains for many elements and provides an interagency definition for each element. These two standardization efforts, domains and definitions, should increase the uniformity of cadastral records and also minimize duplication. | Counties and Department of Revenue | Contributor / User |

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| | Cadastral Data Exchange Standard, v3.0 (pdf) | | |
| **Cartography:** | | | |
| Map Elements Standard (2005) | The Oregon Geographic Information Council (OGIC) has established a set of map elements* that shall be present on all "stand-alone" maps produced by Oregon state agency personnel. The purpose is to serve as a set of standards and guidelines for the production and distribution of official maps in electronic or paper formats. These standards and guidelines are necessary because, in today's electronic information environment, map authors have little control over the distribution and use of their maps once released. The elements defined are to help users and producers to:<br><br>• Better understand the map information.<br>• Identify the standards, practices, and source data used in developing the map.<br>• Enable tracking electronic source files so map developers can more quickly make alterations or additional copies.<br>• Provide a geospatial foundation to which an organization can add detail, attach attribute information, accurately register and compile other themes of data, such as zoning, permits, assessment data, accident data, hazardous waste site data, etc., and orient and link the results of an application to the landscape.<br><br>*Elements to include: title, legend, author, scale, originator, etc.<br><br>Map Elements Standard, v1.0 (pdf) | All Agencies | Contributor/User |
| **Climate:** | | | |
| Oregon Climate Data Standard (2003) | OGIC delegated the development of a Climate Framework Implementation Plan and a prototype Climate Data Standard to the Framework Implementation Team Climate Subcommittee (FIT-CLIM) to | Federal and State Agencies | User |

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| | an Oregon Framework Implementation Team (FIT). The Climate Framework includes a variety of elements, including precipitation, snowfall, temperature, and growing season, among others. The climate standard includes the state of Oregon as well as nearby portions of adjacent states. The raster (grid) and vector (lines, polygons, and shape files) and their respective metadata, are specified by their data environment, reference systems, GPS, Integration Themes, Resolution, Accuracy, Edge Matching, and FIC.<br><br>Climate Standard. (pdf) | | |
| **Coordinate System:** | | | |
| Coordinate System for the State of Oregon (no year) | Current Standard Statewide Coordinate System is NAD 1983 Oregon Statewide Lambert Feet International with a Lambert Conformal Conic Projection.<br><br>Oregon Coordinate Reference System Standard | N/A | User |
| **Elevation:** | | | |
| Oregon Terrestrial Raster Elevation Data Standard (OTRES) (2003) | OTRES provides a consistent structure for data producers and data users to ensure the compatibility of datasets within the same framework layer and between other framework layers and themes. The OTRES describes the critical metadata elements necessary to adequately describe, produce, and use a DEM in Oregon and focuses on the description of the dataset rather than the details of the database.<br><br>Oregon Terrestrial Raster Elevation Data Standard v1.04. (pdf) | Oregon Department of Forestry (ODF), Oregon Department of Geology & Mineral Industries (ODOGAMI) | User |
| Oregon Terrestrial Vector Elevation Data Standard (OVES) (2005) | OVES provides a consistent structure for data producers and data users to ensure the compatibility of datasets within the same framework layer and between other framework layers and themes. OFET is composed of five parts: | ODF, ODOGAMI | Contributor / User |

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| | • Raster Elevation Model (also known as a DEM)<br>• Vector (line and point representations of surface elevation)<br>• Subsurface water depth measurements (bathymetry)<br>• Digital Terrain Model (DTM) composed of surface "break lines" and mass elevation points<br>• Elevation Bands (polygons)<br><br>Oregon Elevation Data Standard v1.1. (pdf) | | |
| Oregon Airborne LiDAR Data Standard (OALDS) (2010) | OALDS provides a consistent structure for data producers and data users to ensure the compatibility of datasets within the same framework layer and between other framework layers and themes. The OALDS describes the critical data format, data elements and metadata elements necessary to adequately describe, distribute, and use airborne LiDAR derived point cloud data in Oregon. These vector data have multiple database fields attached to individual graphic elements.<br><br>Oregon Airborne LiDAR Data Standard v1.1. (pdf) | ODOGAMI | User |
| **Geodetic Control** | | | |
| Geodetic Control Data Content Standards (2003) | Geodetic control provides a common reference system for establishing the coordinate positions of all geographic data. It provides the means for tying all geographic features to common, nationally used horizontal and vertical coordinate systems. The main features of geodetic control information are geodetic control stations. The geodetic control component of the framework consists of geodetic control stations and related information – the name, feature identification code, latitude and longitude, orthometric and ellipsoid heights, and metadata for each station. The metadata for each geodetic control point contains descriptive data, positional accuracy, [physical] condition, and other pertinent characteristics for that point.<br><br>Geographic Information Framework-Data Content Standards For Geodetic Control.v3.0 (pdf) | National Geodetic Survey (NGS), Federal, State and Local Agencies | Contributor / User |

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| **Geoscience:** | | | |
| Oregon Geology Data Standard (2004) | Provides a consistent and maintainable structure for geologic map data including geospatial elements, descriptive character (lithology) of geologic units, geologic content, and metadata. The following goals influenced development of this standard:<br><br>• Assemble the best available geologic information statewide for Oregon.<br>• Provide for periodic updates as new local and regional geologic mapping is completed and provide a process and data structure to meld this new mapping into the OGFL.<br>• Create a widely usable dataset and data structure, while acknowledging that geologic terminology is extremely technical.<br>• Provide reference map information for each geologic data element, and not to reinterpret the reference map information.<br><br>Oregon Geologic Data Standard v1.0. (pdf) | ODOGAMI | User |
| Soil Geographic Data Standard (Federal Standard from 1997) | The purpose of this standard is to standardize the names, definitions, ranges of values, and other characteristics of soil survey map attribute data developed by the National Cooperative Soil Survey (NCSS). This standard applies to the tabular data associated with the soil survey maps developed by the National Cooperative Soil Survey at scales of about 1:12,000 to 1:30,000. It contains data of and about soil map units and map unit components and no point or site data of a specific location.<br><br>Soil Geographic Standard. (pdf) | Federal Agencies | User |
| **Hazards:** | | | |
| Oregon Landslide Data Standards (2012) | The purpose of this standard is to provide a consistent and maintainable structure for the Statewide Landslide Information Database of Oregon (currently in release-2, SLIDO r-2).The standard addresses the graphic data elements held in a geographic information system (GIS) and the non-graphic descriptive information, or attributes that are typically linked to | Federal, State and Local Agencies | Contributor / User |

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| | the graphic elements but organized in a relational database. The following goals influenced development of this standard:<br><br>• The intent of this standard is to foster the orderly development, sharing, and maintenance of the SLIDO r-2. This standard proposes a consistent format, structure, and documentation for the SLIDO r-2. It is a minimum standard intended to be usable by all levels of government, as well as academia, private sector, and the general public.<br>• Assemble the best available landslide data, statewide, for Oregon.<br>• Provide periodic updates to the database as new local and regional landslide mapping is completed and provide a process and data structure to integrate this new mapping into SLIDO.<br>• Create a widely usable dataset and data structure to promote landslide hazard awareness in Oregon.<br>• Provide source data and references for all of the landslide data.<br><br>Oregon Landslide Data Standard v1.0. (pdf) | | |
| Oregon Floodplain Data Exchange Standard (Floodplain Standard) (2006) | The Floodplain Standard describes essential characteristics and data structures for the floodplain elements in Oregon. The Floodplain Standard addresses point and polygon elements, and associated tabular data, that characterize natural floodplains. These elements include FEMA flood zones, amendments to FEMA flood zones, inundation areas, and other information necessary to characterize and regulate activities in a floodplain. Maintenance of floodplain elements is addressed in a separate stewardship plan.<br><br>Oregon Floodplain Standard v1.0 (pdf) | Federal, State and Local Agencies | Contributor / User |
| **Hydrography:** | | | |
| Oregon Water & Monitoring Well Data Standard (OWMWDS) (2014) | OWMWDS is to specify a common method for locating and identifying water & monitoring wells in the state and relates records from different entities about the same wells. | Oregon Water Resources Department | Contributor / User |

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| | Oregon Water & Monitoring Well Data Standard v1.1. (pdf) | | |
| Oregon Hydrography Data Standard (OHDS) (2012) | The purpose of the OHDS is to specify a common method for locating and identifying surface water features and nested drainage basin delineations in the state. Since it is based on national models, hydrography data maintained according to the OHDS and events tied to those features can be exchanged with entities in other states and the federal government.<br><br>Oregon Hydrography Data Standard. v2.0 (pdf) | Oregon Water Resources Department and Federal Agencies | User |
| **Land Use/Land Cover:** | | | |
| Oregon Land Cover Standard (2006) | The Land Use – Land Cover Framework is a collection spatially referenced digital representations of public land management / stewardship, recreation sites, historic sites, cemeteries, archaeological sites, and land use. The Oregon Land Cover Data Standard will provide a consistent and maintainable structure for Land Cover data producers and users, which will help to ensure the compatibility of datasets within the same framework feature set and between other framework feature sets and themes.<br><br>Oregon Land Cover Standard v1. (pdf) | Federal, State and Local Agencies | User |
| **Metadata:** | | | |
| FGDC Content Standard for Digital Geospatial Metadata (CSDGM) (1998) | The standards provide a common set of terminology and definitions for the documentation of digital geospatial data, the names of data elements and compound elements (groups of data elements) to be used for these purposes, the definitions of these compound elements and data elements, and information about the values that are to be provided for the data elements. This standard is intended to support the collection and processing of geospatial metadata. The major uses of metadata are: | Federal, State and Local Agencies | Contributor / User |

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| | • Maintain an organization's internal investment in geospatial data.<br>• Provide information about an organization's data holdings to data catalogues, clearinghouses, and brokerages.<br>• Provide information needed to process and interpret data to be received through a transfer from an external source.<br><br>Content Standard for Digital Geospatial Metadata. (pdf) | | |
| **Orthoimagery:** | | | |
| Oregon Aerial Imagery Index Data Standard (2010) | The Oregon Aerial Imagery Index Data Standard is a five part geospatial metadata index representing aerial or satellite image project areas, photo flight lines, photo centers, image extents, and polygons of the nearest image within one project table. Additionally the standard can accommodate oblique imagery locations in a 6th vector point layer.<br><br>Oregon Aerial Imagery Index Data Standard v1.08. (pdf) | Federal, State and Local | User |
| Content Standard for Digital Orthoimagery (2008) | The primary purpose of this part of the Geographic Information Framework Data Content Standard is to support the exchange of orthoimagery data and establish a common baseline for the semantic content of orthoimagery databases for public agencies and private enterprises. The framework will provide a base on which to collect, register, and integrate digital geospatial information accurately. Digital orthoimagery is a part of this basic set of data described as framework data. The standard includes reducing duplicative data collection and the long-term improvement of the geospatial orthoimagery data within the community.<br><br>Content Standards for Digital Orthoimagery (pdf) | N/A | User |

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| **Transportation:** | | | |
| Road Centerline Data Standard (ORCDS) (2006) | ORCDS provides a consistent and maintainable structure for transportation data producers and users to ensure the compatibility of datasets within the same framework feature set and between other framework feature sets and themes. Specifically, the data standard will assist agencies responsible for the creation, maintenance, and distribution of road centerline data sets including by reducing the costs of data sharing, data development, and data maintenance between road authorities. The ORCDS is primarily concerned with a core set of geospatial information, including geometry, to support the need for an accurate and current representation of the extent and connectivity of Oregon's traveled road infrastructure. Diverse applications to be supported initially include the route-milepost and address range methods of linear referencing and the digital interaction of the road centerline data set with the hydrography data set(s). Future applications that this data standard and data structure are anticipated to support include network connectivity solutions to support oversize vehicle routing, emergency response (computer aided dispatch, or CAD), and planning for intelligent transportation system deployments.<br><br>Oregon Road Centerline Data Standard v5.0. (pdf) | Federal, State and Local | Contributor / User |